CLAIM AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently amended) An *in vitro* diagnostic method for use with an individual having or suspected of having bladder transitional cell carcinoma (TCC), said diagnostic method being used to detect the presence of bladder TCC ~~transitional cell carcinoma (TCC)~~ in ~~an~~ said individual, to determine the stage or severity of bladder TCC in said individual, or to monitor the effect of the therapy administered to said ~~the~~ individual ~~with this cancer, that comprises~~, said diagnostic method comprising:

a) ~~the detection and/or quantification of the~~ detecting and quantifying an amount of fibroblast growth factor receptor 3 (FGFR3) protein in a sample of ~~an~~ the individual, wherein the sample is a bladder tissue or urine, and

b) ~~the comparison of~~ comparing the amount of FGFR3 protein detected in a said sample of ~~an~~ the individual, ~~with their normal reference values~~ with a first reference value from a subject without bladder transitional cell carcinoma, and

c) comparing the detected amount of FGFR3 protein with a second reference value from a subject with advanced T2 bladder transitional cell carcinoma; wherein:

~~wherein, increased levels of FGFR3 protein relative to normal reference values are indicative of bladder TCC, and normal references values in samples are from subjects without bladder transitional cell carcinoma.~~

increased levels of FGFR3 protein, relative to said first reference value, are indicative of bladder TCC, and

increased levels of FGFR3 protein, relative to said second reference value, are indicative of bladder TCC at a stage which is less advanced than T2 bladder TCC.

2-3. (Canceled)

4. (Currently amended) The method according to claim 1 in which the sample is a sample of bladder tissue ~~is~~ obtained by cystoscopy.

5. (Canceled)

6. (Previously presented) The method according to claim 1 in which the sample to be analysed is obtained from an individual not previously diagnosed with bladder transitional cell carcinoma.

7. (Previously presented) The method according to claim 1 in which the sample to be analysed is obtained from an individual who has been previously diagnosed with bladder transitional cell carcinoma.

8. (Previously presented) The method according to claim 1 in which the sample to be analysed is obtained from an individual receiving treatment, or who has been treated previously against bladder transitional cell carcinoma.

9. (Previously presented) The method according to claim 1 characterised in that it comprises the extraction of the sample to obtain an extract of proteins.

10. (Previously presented) The method according to claim 1 characterised in that the ~~detection and/or quantification~~ detecting and quantifying of the FGFR3 protein comprises a first step, in which the protein extract of the sample is placed in contact with a composition of one or more specific antibodies, against one or more epitopes of the FGFR3 protein, and a second step, in which the complexes formed by the antibodies and the FGFR3 protein are quantified.

11. (Previously presented) The method according to claim 10, characterised in that said antibodies correspond to monoclonal or polyclonal

antibodies, intact or recombinant fragments of antibodies, combibodies and Fab or scFv antibody fragments, specific against the FGFR3 protein; these antibodies being human, humanised or of non-human origin.

12. (Previously presented) The method according to claim 10 characterised in that in the detection and/or quantification of the complexes formed by antibodies and the FGFR3 protein, the techniques used are selected from the group comprised by: western-blot, ELISA (Enzyme-Linked Immunosorbent assay), RIA (Radioimmunoassay), Competitive EIA (Competitive Enzyme Immunoassay), DAS-ELISA (Double Antibody Sandwich-ELISA), immunocytochemical or immunohistochemical techniques, techniques based on the use of biochips or protein microarrays that include specific antibodies, assays based on the precipitation of colloidal gold in formats such as dipsticks; or by affinity chromatography techniques, ligand binding assays or lectin binding assays.

13-29. (Canceled)

30. (Currently amended) An *in vitro* method to assess the stage or severity of bladder transitional cell carcinoma (TCC) in an individual, that comprises:

~~a) the detection and/or quantification of the fibroblast growth factor receptor 3 (FGFR3) FGFR3 protein in a sample of an individual, wherein the sample is a bladder tissue or urine, and~~

~~b) the comparison of the amount of FGFR3 protein detected in a sample of an individual, with their normal reference values,~~

~~wherein, increased levels of FGFR3 protein relative to normal reference values are indicative of bladder TCC, and normal references values in samples are from subjects without bladder transitional cell carcinoma.~~

a) forming complexes between an antibody and a fibroblast growth factor receptor 3 (FGFR3) protein obtained from a sample of the individual, wherein the sample is a bladder tissue or urine,

b) detecting an amount of FGFR3 protein in said sample of the individual by quantifying said complexes,

c) comparing the amount of FGFR3 protein detected in said sample of the individual, with a first reference value from a subject without bladder transitional cell carcinoma, and

d) comparing the detected amount of FGFR3 protein with a second reference value from a subject with advanced T2 bladder transitional cell carcinoma; wherein:

increased levels of FGFR3 protein, relative to said first reference value, are indicative of bladder TCC, and

increased levels of FGFR3 protein, relative to said second reference value, are indicative of Ta or T1 bladder TCC.

31. (Currently amended) The method according to claim 39 ~~30~~ in which the sample is a sample of bladder tissue ~~is~~ obtained by cystoscopy.

32. (Currently amended) The method according to claim 39 ~~30~~ in which the sample to be analysed is obtained from an individual not previously diagnosed with bladder transitional cell carcinoma.

33. (Currently amended) The method according to claim 39 ~~30~~ in which the sample to be analysed is obtained from an individual who has been previously diagnosed with bladder transitional cell carcinoma.

34. (Currently amended) The method according to claim 39 ~~30~~ in which the sample to be analysed is obtained from an individual receiving treatment, or who has been treated previously against bladder transitional cell carcinoma.

35. (Currently amended) The method according to claim 39 ~~30~~ characterised in that it comprises the extraction of the sample to obtain an extract of proteins.

36. (Currently amended) The method according to claim 39 ~~30~~ characterised in that the detecting and quantifying ~~detection and/or quantification~~ of the FGFR3 protein comprises a first step, in which the protein extract of the sample is placed in contact with a composition of one or more specific antibodies, against one or more epitopes of the FGFR3 protein, and a second step, in which the complexes formed by the antibodies and the FGFR3 protein are quantified.

37. (Currently amended) The method according to claim 36, characterised in that said antibodies correspond to monoclonal or polyclonal antibodies, intact or recombinant fragments of antibodies, combibodies and Fab or scFv antibody fragments, specific against the FGFR3 protein; these antibodies being human, humanised or of non-human origin.

38. (Currently amended) The method according to claim 36 characterised in that in the quantifying ~~detection and/or quantification~~ of the complexes formed by antibodies and the FGFR3 protein, the techniques used are selected from the group comprised by: western-blot, ELISA (Enzyme-Linked

Immunosorbent assay), RIA (Radioimmunoassay), Competitive EIA (Competitive Enzyme Immunoassay), DAS-ELISA (Double Antibody Sandwich-ELISA), immunocytochemical or immunohistochemical techniques, techniques based on the use of biochips or protein microarrays that include specific antibodies, assays based on the precipitation of colloidal gold in formats such as dipsticks; or by affinity chromatography techniques, ligand binding assays or lectin binding assays.

39. (New) An diagnostic method for use with an individual having or suspected of having bladder transitional cell carcinoma (TCC), wherein said diagnostic method detects the presence of bladder TCC in said individual, determines the stage or severity of bladder TCC in said individual, or monitors the effect of the therapy administered to said individual, said diagnostic method comprising:

detecting and quantifying an amount of fibroblast growth factor receptor 3 (FGFR3) protein in a sample of the individual, wherein the sample is a bladder tissue or urine, and

comparing the amount of FGFR3 protein detected in said sample of the individual, with a first reference value from a subject without bladder transitional cell carcinoma, and comparing the detected amount of FGFR3 protein to a third reference value from a subject with Ta or T1 bladder transitional cell carcinoma,

wherein levels of FGFR3 protein which are greater than said first reference value and less than said third reference value are indicative of advanced T2 bladder TCC.

40. (New) The method according to claim 1, further comprising:

d) comparing the detected amount of FGFR3 protein to a third reference value from a subject with Ta or T1 bladder transitional cell carcinoma, wherein:

i) increased levels of FGFR3 protein, relative to said second reference value, are indicative of Ta or T1 bladder TCC; and

ii) levels of FGFR3 protein which are greater than said first reference value and less than said third reference value are indicative of advanced T2 bladder TCC.